Utilizing Your T.E.A.M.® Report
by Jeremy O'Brien

Why Analyze

Plant tissue analysis is an extremely helpful tool in determining the nutritional needs of plants. It directly indicates the exact amount of each mineral that the plant is removing from the soil and from fertilizer and accumulating in the leaves. Each analysis will represent a part of the overall crop-nutrition picture. Plant-tissue analysis is also a very effective way to determine if the current fertility program is efficient or if there are ways to modify it to achieve an increased benefit.

Visual symptoms of mineral deficiencies are oftentimes a misleading method of diagnosing the nutritional status of plants because the symptoms of different nutrient deficiencies are similar in appearance. Also, non-nutritional problems can appear very similar to deficiencies.

Critical Levels Method

In the past, tissue analysis was interpreted in a number of ways. One method relies on the critical levels of the minerals in the plant tissue. The critical level is defined as the point below which a nutrient deficiency will result in a 10% reduction in yield provided that all the other nutrients and growth factors are not limiting growth. Critical levels for each nutrient have been established

by research in greenhouses using plants grown in nutrient solutions.

Optimal Range Method

Another way of interpreting plant tissue analysis is to look at optimal ranges. This system is designed to indicate the appropriate ranges for all the essential nutrients that will maximize quality and yield.

Unfortunately, optimal ranges do not address the relationships that take place between the minerals.

Figure 1. Canola Growth With and Without T.E.A.M.®

Albion® T.E.A.M.® Evaluation

Albion Advanced Nutrition® has developed a unique method to evaluate tissue-analysis results. Albion has developed a very specialized computer program— Technical Evaluation of Albion Minerals (T.E.A.M.). Albion T.E.A.M. analysis evaluates how much of each nutrient is found in the tissue and compares that finding against its optimal level. The T.E.A.M. program also measures the relationships between the minerals. The program ranks the minerals based on their limitation to optimal crop production. At the bottom of the report, recommendations are listed for the foliar application of nutrients to correct for nutrient deficiencies or imbalances.

In the case of the macronutrients (N, P, K, & S) the foliar application should only be considered a supplement to these elements being supplied by the soil. In most cases soil applications of these elements will be required in addition to the recommended foliar sprays.

When trying to determine plant nutritional needs, plant-tissue analysis can provide some very important information. Being able to accurately interpret the results of a tissue test is critical to success. The unique Albion T.E.A.M. reporting system provides you with all of the necessary information to accurately diagnose and address specific nutritional problems. Please contact your local Albion representative to answer any questions you may have. ❧

Figure 1. T.E.A.M.® Report

Report: P0425001

Grower: POTATO GROWER
FARM

Send to: DEALER
ADDRESS
CITY ST 99999

Albion®
Advanced Nutrition

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T.E.A.M.® Analysis Report

Lab Number: 60643   **Crop:** POTATO

Sample: 3   **Field:** POTATO FIELD   **Date of Report:** 25-Apr-02

Analyzed Results

N	S	P	K	Mg	Ca	Na	NO$_3$-N	Fe	Al	Mn	B	Cu	Zn	Mo
			(%)							(ppm)				
7.6	0.62	0.89	2.69	0.34	0.68	0.11	3838	197	173	113	27	20	58	2.79

Optimal Ranges

N	S	P	K	Mg	Ca	Na		Fe	Al	Mn	B	Cu	Zn	Mo
4	0.25	0.3	3.5	0.5	0.7	Less than		100	Less than	60	25	10	30	0
6	0.5	0.7	6.5	1.1	2	0.15		200	250	200	60	25	70	0

Nutrient Level	Mineral Name	Nutrient Index
Very Low		
|	MAGNESIUM (Mg)	-36
|	POTASSIUM (K)	-36
Low	CALCIUM (Ca)	-26
|	BORON (B)	-23
|	MANGANESE (Mn)	-10
|	COPPER (Cu)	0
Optimum	ZINC (Zn)	3
|	IRON (Fe)	14
|	PHOSPHORUS (P)	34
High	SULFUR (S)	34
|	NITROGEN (N)	47
Very High		

T.E.A.M.® Recommendations

48.0	FL OZ/AC	METALOSATE MAGNESIUM
48.0	FL OZ/AC	METALOSATE POTASSIUM
24.0	FL OZ/AC	METALOSATE CALCIUM
8.0	FL OZ/AC	METALOSATE BORON

By: _DB_